108TH CONGRESS
1ST SESSION

S. 821

To accelerate the commercialization and widespread use of hydrogen energy and fuel cell technologies, and for other purposes.

IN THE SENATE OF THE UNITED STATES

APRIL 8, 2003

Mr. HARKIN introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

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A BILL

To accelerate the commercialization and widespread use of hydrogen energy and fuel cell technologies, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the ''Hydrogen and Fuel Cell Energy Act of 2003''.

(b) TABLE OF CONTENTS.—The table of contents of this Act is as follows:

TITLE I—HYDROGEN RESEARCH, DEVELOPMENT, AND DEMONSTRATION

SEC. 101. SHORT TITLE.

This title may be cited as the ''George E. Brown, Jr. and Robert S. Walker Hydrogen Future Act of 2003''.

SEC. 102. AMENDMENT OF THE SPARK M. MATSUNAGA HYDROGEN RESEARCH, DEVELOPMENT, AND DEMONSTRATION ACT OF 1990.

The Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 (42 U.S.C. 12401 et seq.) is amended to read as follows:

''SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

''(a) SHORT TITLE.—This Act may be cited as the ''Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990''.

''(b) TABLE OF CONTENTS.—The table of contents of this Act is as follows:

''SEC. 2. FINDING.

''Congress finds that it is in the national interest to accelerate introduction of hydrogen energy and fuel cell technologies in order to—

''(1) increase energy efficiency and security; and

''(2) enable the use of clean, domestic, and renewable energy sources.

''SEC. 3. PURPOSES.

''The purposes of this Act are—

''(1) to direct the Secretary to conduct a research, development, demonstration, and commercial application program on hydrogen production, delivery, storage, and use technologies and fuel cell technologies;

''(2) to accelerate the commercialization and widespread use of hydrogen energy and fuel cell technologies in transportation, commercial, industrial, residential, and utility applications, in order to—

''(A) reduce the life cycle pollution and greenhouse gas emissions from energy use;

''(B) enable widespread use of renewable energy sources by allowing clean, efficient, and flexible storage, transportation, and use of the energy; and

''(C) promote the energy security of the United States through use of domestic energy sources and distributed energy infrastructure;

''(3) to reduce the costs of fuel cell stacks and of hydrogen fuel;

''(4) to improve hydrogen storage and other critical technologies;

''(5) to enable the economical and environmentally sound use of renewable resources for the production of hydrogen; and

''(6) to ensure the coordinated availability of hydrogen-powered vehicles and the necessary refueling infrastructure.

"SEC. 4. DEFINITIONS.

"In this Act:

"(1) DEPARTMENT.—The term 'Department' means the Department of Energy.

"(2) PANEL.—The term 'Panel' means the Hydrogen and Fuel Cells Technical Advisory Panel established by section 107(a).

"(3) SECRETARY.—The term 'Secretary' means the Secretary of Energy.

"SEC. 5. COORDINATION AND CONSULTATION.

"(a) RESPONSIBILITY OF SECRETARY.—

"(1) IN GENERAL.—The Secretary shall have overall management responsibility for carrying out this Act.

"(2) ADMINISTRATIVE ACTIONS.—In carrying out this Act—

"(A) the Secretary shall establish a central point for the coordination of all hydrogen energy and fuel cell research, development, and demonstration activities of the Department;

"(B) the Secretary and the Panel may obtain assistance from, any other Federal agency—

"(i) on a reimbursable or non-reimbursable basis; and

''(ii) with the consent of the Federal agency; and

''(C) the Secretary shall consult with—

''(i) other Federal agencies, as appropriate; and

''(ii) the Panel.

''(b) DUPLICATION.—The Secretary shall ensure, to the maximum extent practicable, that activities under this Act do not—

''(1) duplicate any available research and development results; or

''(2) displace or compete with privately-funded hydrogen and fuel cell energy activities.

''SEC. 6. ADVISORY PANEL.

''(a) ESTABLISHMENT.—There is established an advisory panel, to be known as the 'Hydrogen and Fuel Cells Technical Advisory Panel', to advise the Secretary in carrying out this Act.

''(b) MEMBERSHIP.—

''(1) IN GENERAL.—The Secretary shall appoint to the Panel not fewer than 9 nor more than 15 members, based on technical and other qualifications, from—

''(A) domestic industry;

''(B) universities;

"(C) professional societies;

"(D) Federal laboratories;

"(E) financial institutions;

"(F) environmental organizations; and

"(G) such other organizations as the Secretary determines to be appropriate.

"(2) TERMS.—

"(A) IN GENERAL.—The term of a member of the Panel shall not be more than 3 years.

"(B) STAGGERED TERMS.—The Secretary may appoint members of the Panel in a manner that allows the terms of the members serving at any time to expire at spaced intervals so as to ensure continuity in the functioning of the Panel.

"(C) REAPPOINTMENT.—A member of the Panel whose term expires may be reappointed.

"(3) CHAIRPERSON.—The Panel shall select a Chairperson from among the members of the Panel.

"(c) REVIEW AND RECOMMENDATIONS.—

"(1) IN GENERAL.—The Panel shall review and make any necessary recommendations to the Secretary on—

"(A) the implementation and conduct of programs under this Act;

''(B) the economic, technological, and environmental consequences of the deployment of hydrogen production, delivery, and use technologies and fuel cell technologies; and

''(C) the coordination plan prepared by the task force under section 7(c).

''(2) CONSIDERATION BY SECRETARY.—

''(A) IN GENERAL.—The Secretary shall consider, but shall not be required to adopt, any recommendation of the Panel under paragraph (1).

''(B) REPORT.—The Secretary shall include in the report under section 104—

''(i) for each recommendation of the Panel implemented by the Secretary, a description of the progress made in implementing the recommendation; and

''(ii) for each recommendation of the Panel that is not implemented by the Secretary, an explanation of the reasons why the recommendation was not implemented.

''(d) SUPPORT.—The Secretary shall provide such staff, funds, and other assistance as are necessary to enable the Panel to carry out the responsibilities of the Panel.

"SEC. 7. INTERAGENCY TASK FORCE AND COORDINATION PLAN.

"(a) ESTABLISHMENT.—Not later than 120 days after the date of enactment of the Hydrogen and Fuel Cell Energy Act of 2003, the President shall establish an interagency task force to coordinate Federal hydrogen and fuel cell energy activities.

"(b) MEMBERSHIP.—The task force shall include—

"(1) the Director of the Office of Science and Technology Policy, who shall act as chairperson; and

"(2) representatives of—

"(A) the Department of Energy;

"(B) the Department of Transportation;

"(C) the Department of Defense;

"(D) the Department of Commerce (including the National Institute for Standards and Technology);

"(E) the Environmental Protection Agency;

"(F) the National Aeronautics and Space Administration;

"(G) the Department of State; and

"(H) such other Federal agencies as the President considers appropriate.

"(c) COORDINATION PLAN.—The task force shall prepare a comprehensive coordination plan for Federal hy-

drogen and fuel cell energy activities, which shall include a summary of those activities.

''(d) REPORT.—Not later than 1 year after the date on which the President establishes the task force, the task force shall submit to Congress a report that includes—

''(1) the coordination plan under subsection (c); and

''(2) a description of actions taken to ensure interagency coordination of Federal hydrogen and fuel cell energy activities.

''SEC. 8. REVIEW BY THE NATIONAL ACADEMY OF SCIENCES.

''Not later than June 30, 2006, and at least every 4 years thereafter, the National Academy of Sciences shall—

''(1) complete a review of—

''(A) the progress made through Federal hydrogen and fuel cell energy programs and activities; and

''(B) the need for modified or additional programs; and

''(2) submit to Congress a report that describes the results of the review.

"TITLE I—HYDROGEN ENERGY AND FUEL CELL TECHNOLOGY

"SEC. 101. RESEARCH AND DEVELOPMENT.

''(a) PROGRAM.—The Secretary shall carry out a research and development program relating to hydrogen production, delivery, storage, and use technologies and fuel cell technologies, the goal of which program shall be to enable the safe, economical, and environmentally sound use of hydrogen energy and fuel cells for industrial, commercial, residential, transportation, and utility applications.

''(b) RESEARCH AND DEVELOPMENT AREAS.—In carrying out the program under subsection (a), the Secretary shall focus on critical technical issues, including—

''(1) the production of hydrogen, with emphasis on cost-effective production from renewable energy resources such as biomass, wind, and solar energy;

''(2) the delivery of hydrogen (including the safe distribution and fueling);

''(3) the storage of hydrogen, including storage in surface transportation;

''(4) the fuel cell technologies for transportation, stationary, and portable applications, with emphasis on cost-reduction of fuel cell stacks; and

''(5) the use of hydrogen energy and fuel cells in a variety of applications, including—

''(A) isolated villages, islands, and areas in which other energy sources are not available or are very expensive; and

''(B) foreign markets, particularly markets in which an energy infrastructure is not well-developed.

''(c) CODES AND STANDARDS.—The Secretary shall—

''(1) facilitate the development of domestic and international codes and standards; and

''(2) seek to resolve other critical regulatory and technical barriers preventing the introduction of hydrogen energy and fuel cells into the marketplace.

''(d) FEDERAL FUNDING.—The Secretary shall carry out the research and development activities authorized under this section through solicitations of proposals and evaluations using competitive merit review.

''(e) COST SHARING.—

''(1) IN GENERAL.—The Secretary shall require a commitment from non-Federal sources of at least 20 percent of the cost of a proposed research or development activity.

''(2) REDUCTION OR ELIMINATION.—The Secretary may reduce or eliminate the cost sharing requirement under paragraph (1)—

''(A) if the Secretary determines that the research and development is of a basic or fundamental nature; or

''(B) for a technical analysis, outreach activity, or educational program that the Secretary does not expect to result in a marketable product.

''SEC. 102. DEMONSTRATIONS IN CONJUNCTION WITH RESEARCH AND DEVELOPMENT.

''(a) REQUIREMENT.—In conjunction with activities conducted under section 102, the Secretary shall conduct small-scale demonstrations of hydrogen energy and fuel cell technologies at self-contained sites in order to evaluate—

''(1) the commercial potential of those technologies; and

''(2) the effectiveness of the technologies in typical use.

''(b) FEDERAL FUNDING.—The Secretary shall carry out the demonstrations authorized under this section through solicitations of proposals and evaluations using competitive merit review.

''(c) COST SHARING.—

''(1) IN GENERAL.—The Secretary shall require a commitment from non-Federal sources of at least 50 percent of the costs directly relating to a demonstration project under this section, as determined by the Secretary.

''(2) REDUCTION.—The Secretary may reduce the cost sharing requirement under paragraph (1) if the Secretary determines that the reduction is appropriate considering the technological risks involved in the project.

''SEC. 103. PUBLIC EDUCATION, TRAINING, AND TECHNOLOGY TRANSFER.

''(a) PUBLIC EDUCATION.—The Secretary shall conduct a public education program designed to increase public interest in and acceptance of hydrogen energy and fuel cell technologies.

''(b) TRAINING.—

''(1) IN GENERAL.—The Secretary shall carry out a program to promote university-based training in critical skills for research in, production of, and use of hydrogen energy and fuel cell technologies.

''(2) COMPONENTS.—The program under this subsection may include—

''(A) the provision of research fellowships at universities;

''(B) the establishment of centers of excellence in critical technologies;

''(C) the provision of internships in industry; and

''(D) the implementation of such other measures as the Secretary deems appropriate.

''(c) TECHNOLOGY TRANSFER.—

''(1) IN GENERAL.—The Secretary shall carry out a program to transfer critical hydrogen energy and fuel cell technologies to the private sector in order to promote—

''(A) greater understanding of those technologies; and

''(B) more widespread use of the results of research conducted under this Act.

''(2) FOREIGN COUNTRIES.—The Secretary shall carry out a program to accelerate wider application of hydrogen energy and fuel cell technologies in foreign countries in order to—

''(A) increase the global market for the technologies; and

''(B) foster global development without harmful environmental effects.

''(3) EXCHANGE OF INFORMATION AND TECHNOLOGY.—The Secretary shall foster the exchange of generic, nonproprietary information and technology developed in accordance with this title among industry, academia, and Federal agencies.

''(4) INVENTORY AND ASSESSMENT.—In carrying out paragraphs (1) and (2), the Secretary shall complete an inventory and assessment of the technical and commercial viability of hydrogen production, delivery, storage, and use technologies and fuel cell technologies.

''SEC. 104. REPORT.

''(a) REQUIREMENT.—Not later than 1 year after the date of enactment of the Hydrogen and Fuel Cell Energy Act of 2003, and biennially thereafter, the Secretary shall submit to Congress a report on the status of and progress in implementing the programs under this title.

''(b) CONTENTS.—A report under subsection (a) shall include, in addition to any opinions and recommendations of the Secretary—

''(1) an assessment of—

''(A) the effectiveness of the programs under this title; and

''(B) the extent to which the programs are meeting the purposes of this Act;

''(2) recommendations of the Panel for any improvements in the programs that are needed, including recommendations for additional legislation; and

''(3) to the maximum extent practicable, an analysis of related Federal, State, local, and private sector research, development, and demonstration activities to identify productive areas for increased intergovernmental and private-public sector collaboration.

''SEC. 105. AUTHORIZATION OF APPROPRIATIONS.

''(a) HYDROGEN ACTIVITIES.—There are authorized to be appropriated to carry out activities under this title relating to hydrogen energy (in addition to any amounts made available for those purposes under other Acts of Congress)—

''(1) $100,000,000 for fiscal year 2004;

''(2) $125,000,000 for fiscal year 2005;

''(3) $150,000,000 for fiscal year 2006;

''(4) $160,000,000 for fiscal year 2007;

''(5) $170,000,000 for fiscal year 2008;

''(6) $180,000,000 for fiscal year 2009; and

''(7) $190,000,000 for fiscal year 2010.

''(b) FUEL CELL ACTIVITIES.—There are authorized to be appropriated to carry out activities under this title relating to fuel cells (in addition to any amounts made

available for those purposes under other Acts of Congress)—

''(1) $100,000,000 for fiscal year 2004;

''(2) $125,000,000 for fiscal year 2005;

''(3) $150,000,000 for fiscal year 2006;

''(4) $125,000,000 for fiscal year 2007;

''(5) $100,000,000 for fiscal year 2008;

''(6) $100,000,000 for fiscal year 2009; and

''(7) $100,000,000 for fiscal year 2010.

''TITLE II—DEMONSTRATIONS

''SEC. 201. FEDERAL FUEL CELL AND HYDROGEN INFRASTRUCTURE PILOT PROJECTS.

''(a) PROGRAM.—The Secretary shall carry out a program of pilot projects to demonstrate the viability of fuel cells and associated hydrogen fueling infrastructure in integrated service in a variety of applications, including—

''(1) fuel cell vehicles in light-duty vehicle fleets;

''(2) heavy-duty fuel cell on-road and off-road vehicles;

''(3) stationary fuel cells in residential and commercial buildings; and

''(4) portable fuel cells, including auxiliary power units in trucks.

''(b) PARTICIPANTS.—

''(1) ELIGIBILITY.—A Federal, State, tribal, or local government agency, academic or other non-profit organization, or private entity shall be eligible to participate in a pilot project under subsection (a).

''(2) SELECTION.—

''(A) FEDERAL.—The Secretary shall—

''(i) consult with Federal agencies (including fleet and building managers) to identify potential pilot projects; and

''(ii) select the projects that best meet the criteria described in subparagraph (C).

''(B) NON-FEDERAL.—The Secretary shall—

''(i) solicit proposals for projects from eligible non-Federal entities; and

''(ii) evaluate the proposals using competitive merit review.

''(C) CRITERIA.—The criteria for selecting pilot projects shall include—

''(i) potential to further the purposes of this Act;

''(ii) interest and capability of the participating entities;

''(iii) appropriateness of the site for fueling infrastructure and for fuel cells;

''(iv) educational potential and visibility to the public;

''(v) geographic diversity;

''(vi) a wide range of climate and operating environments;

''(vii) preference for using fueling infrastructure for both fuel cell vehicles and stationary fuel cells;

''(viii) preference for making fueling infrastructure available for public use; and

''(ix) such other criteria as the Secretary considers appropriate for the success of the projects.

''(3) COST SHARING.—The Secretary may require a commitment from a participating Federal agency based on the costs that the agency would incur for vehicles, power, or other services provided by the pilot projects if the vehicles, power, or other services were not so provided.

''(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized and to be appropriated to carry out this section—

''(1) $40,000,000 for fiscal year 2004;

''(2) $200,000,000 for fiscal year 2005;

''(3) $250,000,000 for fiscal year 2006;

''(4) $250,000,000 for fiscal year 2007;

''(5) $160,000,000 for fiscal year 2008;

''(6) $120,000,000 for fiscal year 2009; and

''(7) $60,000,000 for fiscal year 2010.

''SEC. 202. HYDROGEN TRANSPORTATION CORRIDOR AND REGIONAL PILOT PROJECTS.

''(a) PROGRAM.—

''(1) IN GENERAL.—The Secretary shall carry out a program of pilot projects to demonstrate the viability of hydrogen-powered vehicles and hydrogen fueling infrastructure along major transportation routes or in entire regions.

''(2) VEHICLES.—Hydrogen-powered vehicles eligible for the pilot projects include—

''(A) hybrid electric vehicles that burn hydrogen; and

''(B) fuel cell vehicles.

''(3) FUELING INFRASTRUCTURE.—A pilot project shall include multiple hydrogen fueling stations so that vehicles may refuel throughout the transportation route or region that the pilot project is intended to cover.

''(b) PARTICIPANTS.—

''(1) CONSORTIA.—The Secretary shall solicit proposals for projects from consortia that include

State or local governments, vehicle manufacturers, manufacturers of hydrogen fueling equipment, academic institutions or consulting organizations, and other entities necessary for the success of the projects.

''(2) CRITERIA.—The criteria for selecting pilot projects shall include—

''(A) interest and capability of the participating entities;

''(B) suitability of the location for vehicles that can be refueled only at the stations provided in the project;

''(C) diversity of uses and users of the vehicles in the project;

''(D) educational potential and visibility to the public;

''(E) preference for using fueling infrastructure for both fuel cell vehicles and stationary fuel cells;

''(F) preference for making fueling infrastructure available for public use; and

''(G) such other criteria as the Secretary considers appropriate for the success of the projects.

''(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section—

''(1) $10,000,000 for fiscal year 2004;

''(2) $30,000,000 for fiscal year 2005;

''(3) $50,000,000 for fiscal year 2006;

''(4) $75,000,000 for fiscal year 2007;

''(5) $85,000,000 for fiscal year 2008;

''(6) $85,000,000 for fiscal year 2009; and

''(7) $40,000,000 for fiscal year 2010.

''SEC. 203. INTERNATIONAL DEMONSTRATIONS.

''(a) PROGRAM.—

''(1) IN GENERAL.—The Secretary, in consultation with the Administrator of the Agency for International Development, shall carry out a program of demonstrations of fuel cells and associated hydrogen fueling infrastructure in foreign countries.

''(2) PURPOSES.—The purposes of the demonstrations shall be to—

''(A) demonstrate the use of hydrogen energy and fuel cells in places where a fossil fuel energy infrastructure is not already well developed;

''(B) increase the global market for fuel cell and hydrogen energy technologies; and

''(C) promote global development without harmful environmental effects.

''(3) ELIGIBLE TECHNOLOGIES.—The program may demonstrate—

''(A) fuel cell vehicles in light-duty vehicle fleets;

''(B) heavy-duty fuel cell on-road and off-road vehicles;

''(C) stationary fuel cells in residential and commercial buildings; and

''(D) portable fuel cells, including auxiliary power units in trucks.

''(b) PARTICIPANTS.—

''(1) ELIGIBILITY.—A foreign nation, nonprofit organization, or private entity shall be eligible for a pilot project under subsection (a).

''(2) COOPERATION.—An eligible entity may perform a project in cooperation with United States nonprofit organizations and private entities.

''(3) COST SHARING.—The Secretary may reduce the requirement under section 205(e) based on the expense of foreign activities and the financial resources of participating foreign entities.

''(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section—

''(1) $20,000,000 for fiscal year 2004;

''(2) $50,000,000 for fiscal year 2005; and

''(3) $70,000,000 for each of fiscal years 2006 through 2010.

''SEC. 204. DEMONSTRATIONS OF RENEWABLE PRODUCTION OF HYDROGEN.

''(a) PROGRAM.—The Secretary shall carry out a program of demonstration projects to test the technical and commercial viability of the production of hydrogen from renewable resources, including—

''(1) production of hydrogen and other commercial products from biomass in biorefineries; and

''(2) production and use of hydrogen at a single farm location in electrofarming, including—

''(A) production from—

''(i) cultivation and reforming of biomass;

''(ii) farm waste; or

''(iii) wind power; and

''(B) use in—

''(i) vehicles;

''(ii) equipment; and

''(iii) stationary and portable fuel cells.

''(b) PARTICIPANTS.—

''(1) IN GENERAL.—The Secretary shall select the demonstration projects through solicitation of proposals for funding and evaluation using competitive merit review.

(2) CRITERIA.—The criteria for selecting pilot projects shall include—

''(A) commercial potential for the technology;

''(B) life cycle environmental benefits of the technology;

''(C) the potential of the technology to produce suitable hydrogen gas for use in proton exchange membrane fuel cells; and

''(D) such other criteria as the Secretary considers appropriate for the success of the projects.

''(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section—

''(1) $10,000,000 for fiscal year 2004;

''(2) $50,000,000 for fiscal year 2005;

''(3) $75,000,000 for fiscal year 2006;

''(4) $75,000,000 for fiscal year 2007;

''(5) $75,000,000 for fiscal year 2008;

''(6) $50,000,000 for fiscal year 2009; and

''(7) $50,000,000 for fiscal year 2010.

''SEC. 205. OPERATION, COST SHARING, AND REPORTING.

''(a) OPERATION.—The equipment used in projects under this title shall be operated by the participating entities in integrated service for a period of not less than 2 years.

''(b) TRAINING AND TECHNICAL SUPPORT.—The Secretary shall provide such training and technical support as participating entities require to ensure the success of the projects under this title.

''(c) DATA COLLECTION, ANALYSIS, AND DISSEMINATION.—

''(1) AGREEMENTS.—The Secretary shall enter into agreements with participating agencies and private sector entities providing for the collection of proprietary and nonproprietary information from projects under this title.

''(2) PUBLIC AVAILABILITY.—The Secretary shall make available to all interested persons—

''(A) technical nonproprietary information collected under agreements under paragraph (1); and

''(B) analyses of collected proprietary and nonproprietary information.

''(3) PROPRIETARY INFORMATION.—The Secretary shall not disclose to the public any proprietary information collected under agreements under paragraph (1).

''(d) COORDINATION.—The Secretary shall ensure coordination of the programs under this title with each other and with other Federal hydrogen and fuel cell demonstration programs to improve efficiency, share infrastructure, and avoid duplication of effort.

''(e) COST SHARING.—

''(1) IN GENERAL.—The Secretary shall require a commitment from non-Federal sources of at least 50 percent of the costs relating directly to a demonstration project under this title.

''(2) REDUCTION.—The Secretary may reduce the non-Federal requirement under paragraph (1) if the Secretary determines that the reduction is appropriate considering the technological risks involved in the project.

''(f) REPORTS.—Not later than 1 year after the date of enactment of the Hydrogen and Fuel Cell Energy Act of 2003, and annually thereafter, the Secretary shall submit to Congress a report that—

''(1) provides an update on the progress of selecting and running the projects under this title;

''(2) provides a summary of data collected under subsection (c) and associated analyses;

''(3) assesses the results of the programs; and

''(4) recommends any modifications in the programs that may be necessary to achieve the purposes of this title.''.

TITLE II—FEDERAL PURCHASES

SEC. 201. STATIONARY FUEL CELLS IN FEDERAL BUILDINGS.

Section 205 of the Energy Conservation and Production Act (42 U.S.C. 6834) is amended by adding at the end the following:

''(e) FUEL CELLS.—

''(1) STANDARDS.—Not later than 180 days after the date of enactment of this subsection, the Secretary of Energy shall revise Federal building energy efficiency performance standards to—

''(A) require, to the maximum extent technologically and economically feasible, that each new Federal building use fuel cells as a primary power source;

''(B) encourage placement of fuel cells in Federal buildings in existence as of the date of enactment of this subsection; and

''(C) encourage—

''(i) the use of fuel cells to provide heat and power for Federal buildings;

''(ii) the making available of extra hydrogen for use in transportation and portable fuel cells; and

''(iii) the provision of extra power to the electric grid.

''(2) STUDY.—The Secretary of Energy, in consultation with other Federal agencies as appropriate, shall conduct a study to determine means by which to make effective use of fuel cells in Federal buildings, including—

''(A) the use of fuel cells for high-reliability and uninterruptible power;

''(B) the use of fuel cells to provide heat and power for Federal buildings;

''(C) the need for modifications in—

''(i) building specifications and design;

''(ii) building codes;

''(iii) construction practices; and

''(iv) building operations; and

''(D) the identification of measures and incentives that would increase use of fuel cells in Federal buildings.

''(3) REPORT.—Not later than 18 months after the date of enactment of this subsection, the Secretary of Energy shall submit to Congress a report that describes—

''(A) the progress made as of the date of submission of the report in use of fuel cell power under paragraph (1); and

''(B) the results of the study under paragraph (2).''.

SEC. 202. ZERO EMISSION VEHICLES IN FEDERAL FLEETS.

Section 203(b) of the Energy Policy Act of 1992 (42 U.S.C. 13212(b)) is amended by adding at the end the following:

''(4) ZERO-EMISSION VEHICLES.—

''(A) IN GENERAL.—Except as provided in subparagraph (B), of the number of vehicles acquired by a Federal fleet in a fiscal year, zero-emission vehicles shall comprise—

''(i) 10 percent in each of fiscal years 2007 and 2008;

''(ii) 25 percent in each of fiscal years 2009 and 2010;

''(iii) 50 percent in each of fiscal years 2011 and 2012; and

''(iv) 75 percent in fiscal year 2013 and each fiscal year thereafter.

''(B) PARTIAL CREDIT.—The Secretary may count 2 alternative-fuel vehicles that meet Super Ultra Low Emission Vehicle standards issued by the Environmental Protection Agency as equivalent to 1 zero-emission vehicle in meeting the deadlines specified in subparagraph (A).

''(C) DELAY OF DEADLINES.—If, for a fiscal year, the Secretary determines that no suitable commercial vehicle is available for acquisition under subparagraph (A), the Secretary may delay the deadlines for that year and for subsequent years specified in that subparagraph by 1 year.

''(5) OVERALL FEDERAL PURCHASES.—The Secretary may promulgate regulations under which the requirements under paragraph (4)(A) would be met with respect to overall Federal purchases rather than by individual Federal fleets.''.

TITLE III—TAX INCENTIVES

SEC. 301. AMENDMENT OF 1986 CODE.

Except as otherwise expressly provided, whenever in this title an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of the Internal Revenue Code of 1986.

SEC. 302. CREDIT FOR FUEL CELL AND HYDROGEN MOTOR VEHICLES.

(a) IN GENERAL.—Subpart B of part IV of subchapter A of chapter 1 (relating to foreign tax credit, etc.) is amended by adding at the end the following new section:

"SEC. 30B. CREDIT FOR FUEL CELL AND HYDROGEN MOTOR VEHICLES.

''(a) ALLOWANCE OF CREDIT.—There shall be allowed as a credit against the tax imposed by this chapter for the taxable year an amount equal to the sum of—

''(1) the new qualified fuel cell motor vehicle credit determined under subsection (b), and

''(2) the new qualified hydrogen fuel motor vehicle credit determined under subsection (c).

''(b) NEW QUALIFIED FUEL CELL MOTOR VEHICLE CREDIT.—

''(1) IN GENERAL.—For purposes of subsection (a), the new qualified fuel cell motor vehicle credit determined under this subsection with respect to a new qualified fuel cell motor vehicle placed in service by the taxpayer during the taxable year is—

''(A) $4,000, if such vehicle has a gross vehicle weight rating of not more than 8,500 pounds,

''(B) $10,000, if such vehicle has a gross vehicle weight rating of more than 8,500 pounds but not more than 14,000 pounds,

''(C) $20,000, if such vehicle has a gross vehicle weight rating of more than 14,000 pounds but not more than 26,000 pounds, and

''(D) $40,000, if such vehicle has a gross vehicle weight rating of more than 26,000 pounds.

''(2) INCREASE FOR FUEL EFFICIENCY.—

''(A) IN GENERAL.—The amount determined under paragraph (1)(A) with respect to a new qualified fuel cell motor vehicle which is a passenger automobile or light truck shall be increased by—

''(i) $1,000, if such vehicle achieves at least 150 percent but less than 175 per-

cent of the 2002 model year city fuel economy,

"(ii) $1,500, if such vehicle achieves at least 175 percent but less than 200 percent of the 2002 model year city fuel economy,

"(iii) $2,000, if such vehicle achieves at least 200 percent but less than 225 percent of the 2002 model year city fuel economy,

"(iv) $2,500, if such vehicle achieves at least 225 percent but less than 250 percent of the 2002 model year city fuel economy,

"(v) $3,000, if such vehicle achieves at least 250 percent but less than 275 percent of the 2002 model year city fuel economy,

"(vi) $3,500, if such vehicle achieves at least 275 percent but less than 300 percent of the 2002 model year city fuel economy, and

"(vii) $4,000, if such vehicle achieves at least 300 percent of the 2002 model year city fuel economy.

"(B) 2002 MODEL YEAR CITY FUEL ECONOMY.—For purposes of subparagraph (A), the 2002 model year city fuel economy with respect to a vehicle shall be determined in accordance with the following tables:

"(i) In the case of a passenger automobile:

"If vehicle inertia weight class is:	The 2002 model year city fuel economy is:
1,500 or 1,750 lbs	43.7 mpg
2,000 lbs	38.3 mpg
2,250 lbs	34.1 mpg
2,500 lbs	30.7 mpg
2,750 lbs	27.9 mpg
3,000 lbs	25.6 mpg
3,500 lbs	22.0 mpg
4,000 lbs	19.3 mpg
4,500 lbs	17.2 mpg
5,000 lbs	15.5 mpg
5,500 lbs	14.1 mpg
6,000 lbs	12.9 mpg
6,500 lbs	11.9 mpg
7,000 or 8,500 lbs	11.1 mpg.

"(ii) In the case of a light truck:

"If vehicle inertia weight class is:	The 2002 model year city
1,500 or 1,750 lbs	37.6 mpg
2,000 lbs	33.7 mpg
2,250 lbs	30.6 mpg
2,500 lbs	28.0 mpg
2,750 lbs	25.9 mpg
3,000 lbs	24.1 mpg
3,500 lbs	21.3 mpg
4,000 lbs	19.0 mpg
4,500 lbs	17.3 mpg
5,000 lbs	15.8 mpg
5,500 lbs	14.6 mpg
6,000 lbs	13.6 mpg
6,500 lbs	12.8 mpg
7,000 or 8,500 lbs	12.0 mpg.

"(C) VEHICLE INERTIA WEIGHT CLASS.—For purposes of subparagraph (B), the term

'vehicle inertia weight class' has the same meaning as when defined in regulations prescribed by the Administrator of the Environmental Protection Agency for purposes of the administration of title II of the Clean Air Act (42 U.S.C. 7521 et seq.).

''(3) NEW QUALIFIED FUEL CELL MOTOR VEHICLE.—For purposes of this subsection, the term 'new qualified fuel cell motor vehicle' means a motor vehicle—

''(A) which is propelled by power derived from 1 or more cells which convert chemical energy directly into electricity by combining oxygen with hydrogen fuel which is stored on board the vehicle in any form,

''(B) which, in the case of a passenger automobile or light truck has received a certificate of conformity under the Clean Air Act and meets the zero emission standard for certification under the Clean Air Act for the make and model year of the vehicle,

''(C) the original use of which commences with the taxpayer,

''(D) which is acquired for use or lease by the taxpayer and not for resale, and

''(E) which is made by a manufacturer.

''(c) NEW QUALIFIED HYDROGEN FUEL MOTOR VEHICLE CREDIT.—

''(1) ALLOWANCE OF CREDIT.—The new qualified hydrogen fuel motor vehicle credit determined under this subsection is an amount equal to the applicable percentage of the incremental cost of any new qualified hydrogen fuel motor vehicle placed in service by the taxpayer during the taxable year.

''(2) APPLICABLE PERCENTAGE.—For purposes of paragraph (1), the applicable percentage with respect to any new qualified hydrogen fuel motor vehicle is—

''(A) 50 percent, plus

''(B) 30 percent, if such vehicle—

''(i) has received a certificate of conformity under the Clean Air Act and meets or exceeds the most stringent standard available for certification under the Clean Air Act for that make and model year vehicle (other than a zero emission standard), or

''(ii) has received an order from an applicable State certifying the vehicle for sale or lease in California and meets or ex-

ceeds the most stringent standard available for certification under the State laws of California (enacted in accordance with a waiver granted under section 209(b) of the Clean Air Act) for that make and model year vehicle (other than a zero emission standard).

''(3) INCREMENTAL COST.—For purposes of this subsection, the incremental cost of any new qualified hydrogen fuel motor vehicle is equal to the amount of the excess of the manufacturer's suggested retail price for such vehicle over such price for a gasoline or diesel fuel motor vehicle of the same model, to the extent such amount does not exceed—

''(A) $5,000, if such vehicle has a gross vehicle weight rating of not more than 8,500 pounds,

''(B) $10,000, if such vehicle has a gross vehicle weight rating of more than 8,500 pounds but not more than 14,000 pounds,

''(C) $25,000, if such vehicle has a gross vehicle weight rating of more than 14,000 pounds but not more than 26,000 pounds, and

''(D) $40,000, if such vehicle has a gross vehicle weight rating of more than 26,000 pounds.

''(4) NEW QUALIFIED HYDROGEN FUEL MOTOR VEHICLE.—For purposes of this subsection, the term 'new qualified hydrogen fuel motor vehicle' means any motor vehicle—

''(A) which is only capable of operating on hydrogen fuel,

''(B) the original use of which commences with the taxpayer,

''(C) which is acquired by the taxpayer for use or lease, but not for resale, and

''(D) which is made by a manufacturer.

''(d) APPLICATION WITH OTHER CREDITS.—The credit allowed under subsection (a) for any taxable year shall not exceed the excess (if any) of—

''(1) the regular tax for the taxable year reduced by the sum of the credits allowable under subpart A and sections 27, 29, and 30, over

''(2) the tentative minimum tax for the taxable year.

''(e) OTHER DEFINITIONS AND SPECIAL RULES.—For purposes of this section—

''(1) MOTOR VEHICLE.—The term 'motor vehicle' has the meaning given such term by section 30(c)(2).

''(2) 2002 MODEL YEAR CITY FUEL ECONOMY.—The 2002 model year city fuel economy with respect to any vehicle shall be measured under rules similar to the rules under section 4064(c).

''(3) OTHER TERMS.—The terms 'automobile', 'passenger automobile', 'light truck', and 'manufacturer' have the meanings given such terms in regulations prescribed by the Administrator of the Environmental Protection Agency for purposes of the administration of title II of the Clean Air Act (42 U.S.C. 7521 et seq.).

''(4) REDUCTION IN BASIS.—For purposes of this subtitle, the basis of any property for which a credit is allowable under subsection (a) shall be reduced by the amount of such credit so allowed (determined without regard to subsection (d)).

''(5) NO DOUBLE BENEFIT.—The amount of any deduction or other credit allowable under this chapter—

''(A) for any incremental cost taken into account in computing the amount of the credit determined under subsection (d) shall be re-

duced by the amount of such credit attributable to such cost, and

''(B) with respect to a vehicle described under subsection (b) or (c), shall be reduced by the amount of credit allowed under subsection (a) for such vehicle for the taxable year.

''(6) PROPERTY USED BY TAX-EXEMPT ENTITIES.—In the case of a credit amount which is allowable with respect to a motor vehicle which is acquired by an entity exempt from tax under this chapter, the person which sells or leases such vehicle to the entity shall be treated as the taxpayer with respect to the vehicle for purposes of this section and the credit shall be allowed to such person, but only if the person clearly discloses to the entity in any sale or lease document the specific amount of any credit otherwise allowable to the entity under this section and reduces the sale or lease price of such vehicle by an equivalent amount of such credit.

''(7) RECAPTURE.—The Secretary shall, by regulations, provide for recapturing the benefit of any credit allowable under subsection (a) with respect to any property which ceases to be property eligible for such credit (including recapture in the case of a

lease period of less than the economic life of a vehicle).

''(8) PROPERTY USED OUTSIDE UNITED STATES, ETC., NOT QUALIFIED.—No credit shall be allowed under subsection (a) with respect to any property referred to in section 50(b) or with respect to the portion of the cost of any property taken into account under section 179.

''(9) ELECTION TO NOT TAKE CREDIT.—No credit shall be allowed under subsection (a) for any vehicle if the taxpayer elects to not have this section apply to such vehicle.

''(10) CARRYBACK AND CARRYFORWARD ALLOWED.—

''(A) IN GENERAL.—If the credit amount allowable under subsection (a) for a taxable year exceeds the amount of the limitation under subsection (d) for such taxable year (in this paragraph referred to as the 'unused credit year'), such excess shall be allowed as a credit carryforward for each of the 20 taxable years following the unused credit year.

''(B) RULES.—Rules similar to the rules of section 39 shall apply with respect to the credit carryforward under subparagraph (A).

''(11) INTERACTION WITH AIR QUALITY AND MOTOR VEHICLE SAFETY STANDARDS.—Unless otherwise provided in this section, a motor vehicle shall not be considered eligible for a credit under this section unless such vehicle is in compliance with—

''(A) the applicable provisions of the Clean Air Act for the applicable make and model year of the vehicle (or applicable air quality provisions of State law in the case of a State which has adopted such provision under a waiver under section 209(b) of the Clean Air Act), and

''(B) the motor vehicle safety provisions of sections 30101 through 30169 of title 49, United States Code.

''(f) REGULATIONS.—

''(1) IN GENERAL.—Except as provided in paragraph (2), the Secretary shall promulgate such regulations as necessary to carry out the provisions of this section.

''(2) COORDINATION IN PRESCRIPTION OF CERTAIN REGULATIONS.—The Secretary of the Treasury, in coordination with the Secretary of Transportation and the Administrator of the Environmental Protection Agency, shall prescribe such regulations as necessary to determine whether a motor vehicle

meets the requirements to be eligible for a credit under this section.

''(g) TERMINATION.—This section shall not apply to any property purchased after—

''(1) in the case of a new qualified fuel cell motor vehicle (as described in subsection (b)), December 31, 2018, and

''(2) in the case of a new qualified hydrogen fuel motor vehicle, December 31, 2013.''.

(b) CONFORMING AMENDMENTS.—

(1) Section 1016(a) is amended by striking ''and'' at the end of paragraph (27), by striking the period at the end of paragraph (28) and inserting '', and'', and by adding at the end the following new paragraph:

''(29) to the extent provided in section 30B(e)(4).''.

(2) Section 55(c)(2) is amended by inserting ''30B(d),'' after ''30(b)(3)''.

(3) Section 6501(m) is amended by inserting ''30B(e)(9),'' after ''30(d)(4),''.

(4) The table of sections for subpart B of part IV of subchapter A of chapter 1 is amended by inserting after the item relating to section 30A the following new item:

''Sec. 30B. Credit for fuel cell and hydrogen motor vehicles.''.

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to property placed in service after the date of the enactment of this Act, in taxable years ending after such date.

SEC. 303. CREDIT FOR INSTALLATION OF HYDROGEN FUELING STATIONS.

(a) IN GENERAL.—Subpart B of part IV of subchapter A of chapter 1 (relating to foreign tax credit, etc.), as amended by this Act, is amended by adding at the end the following new section:

"SEC. 30C. HYDROGEN-FUEL VEHICLE REFUELING PROPERTY CREDIT.

''(a) CREDIT ALLOWED.—There shall be allowed as a credit against the tax imposed by this chapter for the taxable year an amount equal to 50 percent of the amount paid or incurred by the taxpayer during the taxable year for the installation of qualified hydrogen-fuel vehicle refueling property.

''(b) LIMITATION.—The credit allowed under subsection (a)—

''(1) with respect to any retail hydrogen-fuel vehicle refueling property, shall not exceed $100,000, and

''(2) with respect to any residential hydrogen-fuel vehicle refueling property, shall not exceed $2,500.

''(c) YEAR CREDIT ALLOWED.—The credit allowed under subsection (a) shall be allowed in the taxable year in which the qualified hydrogen-fuel vehicle refueling property is placed in service by the taxpayer.

''(d) DEFINITIONS.—For purposes of this section—

''(1) QUALIFIED HYDROGEN-FUEL VEHICLE REFUELING PROPERTY.—The term 'qualified hydrogen-fuel vehicle refueling property' means a qualified clean-fuel vehicle refueling property (as defined in section 179A(d)) relating to hydrogen fuel.

''(2) RESIDENTIAL HYDROGEN-FUEL VEHICLE REFUELING PROPERTY.—The term 'residential hydrogen-fuel vehicle refueling property' means qualified hydrogen-fuel vehicle refueling property which is installed on property which is used as the principal residence (within the meaning of section 121) of the taxpayer.

''(3) RETAIL HYDROGEN-FUEL VEHICLE REFUELING PROPERTY.—The term 'retail hydrogen-fuel vehicle refueling property' means qualified hydrogen-fuel vehicle refueling property which is installed on property (other than property described in

paragraph (2)) used in a trade or business of the taxpayer.

''(e) APPLICATION WITH OTHER CREDITS.—The credit allowed under subsection (a) for any taxable year shall not exceed the excess (if any) of—

''(1) the regular tax for the taxable year reduced by the sum of the credits allowable under subpart A and sections 27, 29, 30, and 30B, over

''(2) the tentative minimum tax for the taxable year.

''(f) BASIS REDUCTION.—For purposes of this title, the basis of any property shall be reduced by the portion of the cost of such property taken into account under subsection (a).

''(g) NO DOUBLE BENEFIT.—No deduction shall be allowed under section 179A with respect to any property with respect to which a credit is allowed under subsection (a).

''(h) REFUELING PROPERTY INSTALLED FOR TAX-EXEMPT ENTITIES.—In the case of qualified hydrogen-fuel vehicle refueling property installed on property owned or used by an entity exempt from tax under this chapter, the person which installs such refueling property for the entity shall be treated as the taxpayer with respect to the refueling property for purposes of this section (and such

refueling property shall be treated as retail hydrogen-fuel vehicle refueling property) and the credit shall be allowed to such person, but only if the person clearly discloses to the entity in any installation contract the specific amount of the credit allowable under this section and modifies the price of such contract to take into account the amount of such credit.

''(i) CARRYFORWARD ALLOWED.—

''(1) IN GENERAL.—If the credit amount allowable under subsection (a) for a taxable year exceeds the amount of the limitation under subsection (e) for such taxable year (referred to as the 'unused credit year' in this subsection), such excess shall be allowed as a credit carryforward for each of the 20 taxable years following the unused credit year.

''(2) RULES.—Rules similar to the rules of section 39 shall apply with respect to the credit carryforward under paragraph (1).

''(j) SPECIAL RULES.—Rules similar to the rules of paragraphs (4) and (5) of section 179A(e) shall apply.

''(k) REGULATIONS.—The Secretary shall prescribe such regulations as necessary to carry out the provisions of this section.

''(l) TERMINATION.—This section shall not apply to any property placed in service after December 31, 2018.''.

(b) INCENTIVE FOR PRODUCTION OF HYDROGEN AT QUALIFIED CLEAN-FUEL VEHICLE REFUELING PROPERTY.—Section 179A(d) (defining qualified clean-fuel vehicle refueling property) is amended by adding at the end the following new flush sentence:

''In the case of hydrogen, paragraph (3)(A) shall be applied by substituting 'production, storage, or dispensing' for 'storage or dispensing' both places it appears.''.

(c) CONFORMING AMENDMENTS.—(1) Section 1016(a), as amended by this Act, is amended by striking ''and'' at the end of paragraph (28), by striking the period at the end of paragraph (29) and inserting '', and'', and by adding at the end the following new paragraph:

''(30) to the extent provided in section 30C(f).''.

(2) Section 55(c)(2), as amended by this Act, is amended by inserting ''30C(e),'' after ''30B(e)''.

(3) The table of sections for subpart B of part IV of subchapter A of chapter 1, as amended by this Act, is amended by inserting after the item relating to section 30B the following new item:

''Sec. 30C. Hydrogen-fuel vehicle refueling property credit.''.

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to property placed in service after the date of the enactment of this Act, in taxable years ending after such date.

SEC. 304. CREDIT FOR RETAIL SALE OF HYDROGEN FUEL AS MOTOR VEHICLE FUEL.

(a) IN GENERAL.—Subpart D of part IV of subchapter A of chapter 1 (relating to business related credits) is amended by inserting after section 40 the following new section:

"SEC. 40A. CREDIT FOR RETAIL SALE OF HYDROGEN FUEL AS MOTOR VEHICLE FUEL.

''(a) GENERAL RULE.—For purposes of section 38, the hydrogen fuel retail sales credit for any taxable year is the applicable amount for each gasoline gallon equivalent of hydrogen fuel sold at retail by the taxpayer during such year as a fuel to propel any qualified motor vehicle, but only if the taxpayer reduces the retail sales price of such fuel by an equivalent amount of such credit.

''(b) DEFINITIONS.—For purposes of this section—

''(1) APPLICABLE AMOUNT.—The term 'applicable amount' means as follows:

''(A) IN GENERAL.—Except as provided in subparagraph (B), 50 cents.

''(B) HYDROGEN FUEL PRODUCED FROM RENEWABLE SOURCES.—

''(i) IN GENERAL.—In the case of hydrogen fuel which is produced from renewable sources or from electricity from such sources, $1.00.

''(ii) RENEWABLE SOURCES.—For purposes of this subparagraph, the term 'renewable sources' means solar, wind, biomass, and geothermal.

''(2) GASOLINE GALLON EQUIVALENT.—The term 'gasoline gallon equivalent' means, with respect to hydrogen fuel, the amount (determined by the Secretary) of such fuel having a Btu content of 114,000.

''(3) QUALIFIED MOTOR VEHICLE.—The term 'qualified motor vehicle' means any motor vehicle (as defined in section 30(c)(2)) which meets any applicable Federal or State emissions standards with respect to hydrogen fuel.

''(4) SOLD AT RETAIL.—

''(A) IN GENERAL.—The term 'sold at retail' means the sale, for a purpose other than resale, after manufacture, production, or importation.

''(B) USE TREATED AS SALE.—If any person uses hydrogen fuel (including any use after importation) as a fuel to propel any qualified hydrogen fuel motor vehicle (as defined in section 30B(c)(4)) before such fuel is sold at retail, then such use shall be treated in the same

manner as if such fuel were sold at retail as a fuel to propel such a vehicle by such person.

''(c) NO DOUBLE BENEFIT.—The amount of any deduction or other credit allowable under this chapter for hydrogen fuel taken into account in computing the amount of the credit determined under subsection (a) shall be reduced by the amount of such credit attributable to such fuel.

''(d) PASS-THRU IN THE CASE OF ESTATES AND TRUSTS.—Under regulations prescribed by the Secretary, rules similar to the rules of subsection (d) of section 52 shall apply.

''(e) TERMINATION.—This section shall not apply to any fuel sold at retail after December 31, 2018.''.

(b) CREDIT TREATED AS BUSINESS CREDIT.—Section 38(b) (relating to current year business credit) is amended by striking ''plus'' at the end of paragraph (14), by striking the period at the end of paragraph (15) and inserting '', plus'', and by adding at the end the following new paragraph:

''(16) the hydrogen fuel retail sales credit determined under section 40A(a).''.

(c) TRANSITIONAL RULE.—Section 39(d) (relating to transitional rules) is amended by adding at the end the following new paragraph:

''(11) NO CARRYBACK OF SECTION 40A CREDIT BEFORE EFFECTIVE DATE.—No portion of the unused business credit for any taxable year which is attributable to the hydrogen fuel retail sales credit determined under section 40A(a) may be carried back to a taxable year ending before the date of the enactment of such section.''.

(d) CLERICAL AMENDMENT.—The table of sections for subpart D of part IV of subchapter A of chapter 1 is amended by inserting after the item relating to section 40 the following new item:

''Sec. 40A. Credit for retail sale of hydrogen fuel as motor vehicle fuel.''.

(e) EFFECTIVE DATE.—The amendments made by this section shall apply to fuel sold at retail after the date of the enactment of this Act, in taxable years ending after such date.

SEC. 305. CREDIT FOR STATIONARY AND PORTABLE FUEL CELLS.

(a) BUSINESS PROPERTY.—

(1) IN GENERAL.—Subparagraph (A) of section 48(a)(3) (defining energy property) is amended by striking ''or'' at the end of clause (i), by adding ''or'' at the end of clause (ii), and by inserting after clause (ii) the following new clause:

''(iii) energy-efficient building property,''.

(2) ENERGY-EFFICIENT BUILDING PROPERTY.—Subsection (a) of section 48 is amended by redesignating paragraphs (4) and (5) as paragraphs (5) and (6), respectively, and by inserting after paragraph (3) the following new paragraph:

''(4) ENERGY-EFFICIENT BUILDING PROPERTY.—For purposes of this subsection—

''(A) IN GENERAL.—The term 'energy-efficient building property' means a fuel cell power plant that—

''(i) generates electricity using an electrochemical process,

''(ii) has an electricity-only generation efficiency greater than 30 percent, and

''(iii) generates at least 0.5 kilowatt of electricity using an electrochemical process.

''(B) LIMITATION.—In the case of energy-efficient building property placed in service during the taxable year, the credit determined under paragraph (1) for such year with respect to such property shall not exceed an amount equal to the lesser of—

''(i) 30 percent (10 percent in the case of taxable years beginning after 2008) of the basis of such property, including ex-

penditures for labor costs properly allocable to the onsite preparation, assembly, or original installation of the property and for piping or wiring to interconnect such property, or

''(ii) $1,000 ($100 for taxable years beginning after 2008) for each kilowatt of capacity of such property.

''(C) SPECIAL RULES.—For purposes of subparagraph (A)(ii)—

''(i) ELECTRICITY-ONLY GENERATION EFFICIENCY.—The electricity-only generation efficiency percentage of a fuel cell power plant is the fraction—

''(I) the numerator of which is the total useful electrical power produced by such plant at normal operating rates, and expected to be consumed in its normal application, and

''(II) the denominator of which is the lower heating value of the fuel source for such plant.

''(ii) DETERMINATIONS MADE ON BTU BASIS.—The electricity-only generation ef-

ficiency percentage shall be determined on a Btu basis.

''(D) FUEL CELL POWER PLANT.—The term 'fuel cell power plant' means an integrated system comprised of a fuel cell stack assembly and associated balance of plant components that converts a fuel into electricity using electrochemical means.

''(E) ENERGY-EFFICIENT BUILDING PROPERTY INSTALLED FOR TAX-EXEMPT ENTITIES.—In the case of energy-efficient building property installed on property owned or used by an entity exempt from tax under this chapter, the person which installs such building property for the entity shall be treated as the taxpayer with respect to the building property for purposes of this section and the credit shall be allowed to such person, but only if the person clearly discloses to the entity in any installation contract the specific amount of the credit allowable under this section and modifies the price of such contract to take into account the amount of such credit.''.

(3) LIMITATION.—Section 48(a)(2)(A) (relating to energy percentage) is amended to read as follows:

''(A) IN GENERAL.—The energy percentage is—

''(i) in the case of energy-efficient building property placed in service in taxable years beginning before January 1, 2009, 30 percent, and

''(ii) in the case of any other energy property, 10 percent.''.

(4) CONFORMING AMENDMENTS.—

(A) Section 29(b)(3)(A)(i)(III) is amended by striking ''section 48(a)(4)(C)'' and inserting ''section 48(a)(5)(C)''.

(B) Section 48(a)(1) is amended by inserting ''except as provided in paragraph (4)(B),'' before ''the energy''.

(5) EFFECTIVE DATE.—The amendments made by this subsection shall apply to property placed in service after the date of the enactment of this Act, in taxable years ending after such date, under rules similar to the rules of section 48(m) of the Internal Revenue Code of 1986 (as in effect on the day before the date of the enactment of the Revenue Reconciliation Act of 1990).

(b) NONBUSINESS PROPERTY.—

(1) IN GENERAL.—Subpart A of part IV of subchapter A of chapter 1 (relating to nonrefundable personal credits) is amended by inserting after section 25B the following new section:

"SEC. 25C. NONBUSINESS ENERGY-EFFICIENT BUILDING PROPERTY.

"(a) CREDIT ALLOWED.—

"(1) IN GENERAL.—In the case of an individual, there shall be allowed as a credit against the tax imposed by this chapter for the taxable year an amount equal to the nonbusiness energy-efficient building property expenditures which are paid or incurred during such year.

"(2) LIMITATION.—The credit allowed under paragraph (1) with respect to property placed in service by the taxpayer during the taxable year shall not exceed an amount equal to the lesser of—

"(A) 30 percent (10 percent in the case of taxable years beginning after 2008) of the basis of such property, or

"(B) $1,000 ($100 for taxable years beginning after 2008) for each kilowatt of capacity of such property.

''(b) NONBUSINESS ENERGY-EFFICIENT BUILDING PROPERTY EXPENDITURES.—For purposes of this section—

''(1) IN GENERAL.—The term 'nonbusiness energy-efficient building property expenditures' means expenditures made by the taxpayer for nonbusiness energy-efficient building property installed on or in connection with a dwelling unit—

''(A) which is located in the United States, and

''(B) which is used by the taxpayer as a residence.

Such term includes expenditures for labor costs properly allocable to the onsite preparation, assembly, or original installation of the property.

''(2) NONBUSINESS ENERGY-EFFICIENT BUILDING PROPERTY.—The term 'nonbusiness energy-efficient building property' means energy-efficient building property (as defined in section 48(a)(4)) if—

''(A) the original use of such property commences with the taxpayer, and

''(B) such property meets the standards (if any) applicable to such property under section 48(a)(4).

''(c) SPECIAL RULES.—For purposes of this section—

''(1) DOLLAR AMOUNTS IN CASE OF JOINT OCCUPANCY.—In the case of any dwelling unit which is jointly occupied and used during any calendar year as a residence by 2 or more individuals the following shall apply:

''(A) The amount of the credit allowable, under subsection (a) by reason of expenditures (as the case may be) made during such calendar year by any of such individuals with respect to such dwelling unit shall be determined by treating all of such individuals as 1 taxpayer whose taxable year is such calendar year.

''(B) There shall be allowable, with respect to such expenditures to each of such individuals, a credit under subsection (a) for the taxable year in which such calendar year ends in an amount which bears the same ratio to the amount determined under subparagraph (A) as the amount of such expenditures made by such individual during such calendar year bears to the aggregate of such expenditures made by all of such individuals during such calendar year.

''(2) TENANT-STOCKHOLDER IN COOPERATIVE HOUSING CORPORATION.—In the case of an individual who is a tenant-stockholder (as defined in section 216) in a cooperative housing corporation (as defined in such section), such individual shall be treated as having made his tenant-stockholder's proportionate share (as defined in section 216(b)(3)) of any expenditures of such corporation.

''(3) CONDOMINIUMS.—

''(A) IN GENERAL.—In the case of an individual who is a member of a condominium management association with respect to a condominium which the individual owns, such individual shall be treated as having made his proportionate share of any expenditures of such association.

''(B) CONDOMINIUM MANAGEMENT ASSOCIATION.—For purposes of this paragraph, the term 'condominium management association' means an organization which meets the requirements of paragraph (1) of section 528(c) (other than subparagraph (E) thereof) with respect to a condominium project substantially all of the units of which are used as residences.

''(4) ALLOCATION IN CERTAIN CASES.—If less than 80 percent of the use of an item is for nonbusiness purposes, only that portion of the expenditures for such item which is properly allocable to use for nonbusiness purposes shall be taken into account.

''(5) WHEN EXPENDITURE MADE; AMOUNT OF EXPENDITURE.—

''(A) IN GENERAL.—Except as provided in subparagraph (B), an expenditure with respect to an item shall be treated as made when the original installation of the item is completed.

''(B) EXPENDITURES PART OF BUILDING CONSTRUCTION.—In the case of an expenditure in connection with the construction or reconstruction of a structure, such expenditure shall be treated as made when the original use of the constructed or reconstructed structure by the taxpayer begins.

''(C) AMOUNT.—The amount of any expenditure shall be the cost thereof.

''(6) PROPERTY FINANCED BY SUBSIDIZED ENERGY FINANCING.—For purposes of determining the amount of nonbusiness energy-efficient building property expenditures made by any individual with respect to any dwelling unit, there shall not be taken

into account expenditures which are made from subsidized energy financing (as defined in section 48(a)(5)(C)).

''(d) BASIS ADJUSTMENTS.—For purposes of this subtitle, if a credit is allowed under this section for any expenditure with respect to any property, the increase in the basis of such property which would (but for this subsection) result from such expenditure shall be reduced by the amount of the credit so allowed.''.

(2) CONFORMING AMENDMENTS.—

(A) Section 25C(c), as added by subsection (a), is amended by striking ''section 26(a) for such taxable year reduced by the sum of the credits allowable under this subpart (other than this section and section 25D)'' and inserting ''subsection (b)(3)''.

(B) Section 23(b)(4)(B) is amended by inserting ''and section 25C'' after ''this section''.

(C) Section 24(b)(3)(B) is amended by striking ''23 and 25B'' and inserting ''23, 25B, and 25C''.

(D) Section 25(e)(1)(C) is amended by inserting ''25C,'' after ''25B,''.

(E) Section 25B(g)(2) is amended by striking ''section 23'' and inserting ''sections 23 and 25C''.

(F) Section 26(a)(1) is amended by striking ''and 25B'' and inserting ''25B, and 25C''.

(G) Section 904(h) is amended by striking ''and 25B'' and inserting ''25B, and 25C''.

(H) Section 1400C(d) is amended by striking ''and 25B'' and inserting ''25B, and 25C''.

(3) ADDITIONAL CONFORMING AMENDMENTS.—

(A) Section 23(c), as in effect for taxable years beginning before January 1, 2004, is amended by striking ''section 1400C'' and inserting ''sections 25C and 1400C''.

(B) Section 25(e)(1)(C), as in effect for taxable years beginning before January 1, 2004, is amended by inserting '', 25C,'' after ''sections 23''.

(C) Subsection (a) of section 1016, as amended by this Act, is amended by striking ''and'' at the end of paragraph (29), by striking the period at the end of paragraph (30) and inserting '', and'', and by adding at the end the following new paragraph:

''(31) to the extent provided in section 25C(f), in the case of amounts with respect to which a credit has been allowed under section 25C.''.

(D) Section 1400C(d), as in effect for taxable years beginning before January 1, 2004, is amended by inserting ''and section 25C'' after ''this section''.

(E) The table of sections for subpart A of part IV of subchapter A of chapter 1 is amended by inserting after the item relating to section 25B the following new item:

''Sec. 25C. Nonbusiness energy-efficient building property.''.

(4) EFFECTIVE DATES.—

(A) IN GENERAL.—Except as provided by subparagraph (B), the amendments made by this subsection shall apply to expenditures after the date of the enactment of this Act, in taxable years ending after such date.

(B) PARAGRAPH (2).—The amendments made by paragraph (2) shall apply to taxable years beginning after December 31, 2003.

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